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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,886	06/26/2001	Pingnan Shi	1504-0059	2419

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EXAMINER	
LAYE, JADE O	

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/891,886	SHI ET AL.	
	Examiner	Art Unit	
	Jade O. Laye	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *7* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 August 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 8/22/05, with respect to the rejection(s) of claim(s) 8 and 9 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of *Emsley et al*, US Pat. Pub. No. 2002/0019983. Accordingly, **THIS ACTION IS MADE NON-FINAL.**

2. Due to Applicant's amended Drawings, Specification, and Claims, the objections applied in the previous Non-Final action are hereby withdrawn.

3. Applicant's amended Drawings, Specification, and Claims, dated 8/22/05, have been entered and made of record.

4. Applicant's arguments regarding the remaining amended claims, filed 8/22/05, have been fully considered but they are not persuasive. Below, the Examiner will address some of Applicant's arguments. Please note that where there is no specific response to Applicant's arguments, the Examiner either considers the argument moot in light of the new grounds of rejection or consider the rejection sufficient to rebut said argument.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 3-5, 8-10, 12-16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Emsley et al* (US Pat. No. 2002/0019983).

Amended Claim 1 recites a test meter for a digital signal distribution system comprising limitations too numerous to recite herein, however each will be discussed. (Please refer to claim sheet). *Emsley et al* disclose a digital testing instrument comprising a signal input (i.e., front end operative to acquire signal), circuitry to apply European or American digital standards, and circuitry to apply many different types of digital demodulation. (Abstract & Pars. [0001-0004, 0006, 0008, 0020, 0022, 0024, & 0050]). The Examiner interprets "plurality of digital standards" as recited in claim 1, to refer to digital standards which specify bandwidths utilized in communications network. On page 10 of the Specification, Applicant states "the ITU-T J.83 digital standard provides or specifies bandwidth...for various locales." Applicant then goes on to state "...annex A specifies a bandwidth of 7 or 8 MHz while Annex B specifies a bandwidth of 6 MHz." Although *Emsley* does not specifically discuss ITU digital standards, they are inherently disclosed because *Emsley* teaches the system can filter signals with 6 or 8 MHz wide passbands. (Par. [0024]). This, of course, means *Emsley*'s system can apply signal conditioning according to the ITU's Annex A or B standards.

Applicant has argued that *Emsley*'s system is only capable of being used in conjunction with "either" a U.S. or European signal, but not both simultaneously. (Pg. 10, Appl. Response). The Examiner agrees this interpretation is reasonable, however it is not clear whether it is

correct. However, in the interest of fairness the Examiner will side with Applicant on this issue. Thus, the Examiner applies a 103 rejection reasoning that since *Emsley* does in fact disclose a testing instrument that could be used in conjunction with either a U.S. or European signal, it would have been obvious to combine each disclosed embodiment, thereby providing a testing instrument to be used in a U.S. or European system concurrently. Accordingly, it would have been obvious to one ordinarily skilled in this art at the time of Applicant's invention to modify the teaching of *Emsley* to encompass a testing meter capable of use in either a U.S. or European system concurrently, thereby providing a testing meter which could be utilized in the U.S. or European countries concurrently.

Claim 10 and 16 are encompassed within Claim 1. Thus, it is analyzed and rejected as previously discussed.

As to claim 3, *Emsley* further teaches the system contains a multiple filters. (Par. [0024]). Moreover, in light of the rejection of Claim 1, it would be inherent that such a system contain filters which correspond to the various digital standards. Accordingly, the modified system of *Emsley et al* disclose every limitation of Claim 3.

Claims 12 and 13 correspond to Claim 3. Thus, each is analyzed and rejected as previously discussed.

Claim 4 recites the test meter of claim 3, wherein said first filter comprises a SAW filter operative to filter a first bandwidth according to a first digital standard, and said second filter comprises a SAW filter operative to filter a second bandwidth according to a second digital standard. As discussed above, *Emsley* discloses all limitations of claim 3, and further teaches the use of a SAW filter operative to filter a first signal having a passband of 6 MHz (i.e., Annex B)

or 8 MHz (i.e., Annex A). (Par. [0024]) But, *Emsley* fails to specifically recite the use of two individually SAW filters used to perform the same functions. However, the choice of whether to use separate SAW filters to pass the 6 and 8 MHz signals would have been an obvious design choice. To further support this argument, *Emsley* goes on to state that the invention is "not limited to the specifically identified components" and that other components capable of the same functions can be used. (Par. [0019]). Following this logic, claim 4's limitation is an obvious variant of *Emsley*'s single SAW filter because *Emsley*'s single SAW filter performs the same function as Applicant's two individual SAW filters. Accordingly, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to further modify the teaching of *Emsley* in order to provide a system capable of testing signals in a variety of cable networks.

Claim 5 recites the test meter of claim 4, wherein said first digital standard comprises ITU-T J.83 Annex A and said second digital standard comprises ITU-T J.83 Annex B. As discussed above, the modified system of *Emsley* contains all limitations of claim 5, and further encompasses the limitations of claim 5 as well because each is encompassed within the limitations of claim 4. Thus, it is analyzed and rejected as previously discussed.

Claim 14 corresponds to Claim 5. Thus, it is analyzed and rejected as previously discussed.

Claim 8 recites the test meter of Claim 1, including further limitations which will not be recited here (refer to claim sheet). As discussed above, *Emsley* discloses all limitations of Claim 1, and further teaches the use of a display, keypad, and signature pad (i.e., user interface), (Par. [(0052, 0055, & 0056]) but fails to specifically recite the remaining limitations of Claim 8. However, the Examiner deems such limitations too be inherent and/or obvious in light of the

rejection of Claim 1. In order for a system to operate, such as the modified system of *Emsley* discussed under Claim 1 (which is concurrently capable of processing various digital standards and modulation schemes), there must be some form of interface which allows the system to choose which digital modulation scheme to employ. Therefore, such a limitation would be inherent. Following this logic, allowing a user to select said modulation scheme would be an obvious variant to said inherent limitation. Accordingly, it would have been obvious to one having ordinary skill in this art at the time of Applicant's invention to modify the system of Emsley to further include a user interface, thereby providing a system which would allow a user to develop self-initiated tests.

(Moreover and in the alternative, the Examiner takes Official Notice that, at the time of Applicant's invention, methods of allowing a user to select the modulation scheme of filters was notoriously well-known in this art. (as evidenced by *Collison et al*, US Pat. No. 4,757,519 – Abstract; Col. 2, Ln. 29-40; Col. 3, Ln. 4-10).)

Claim 9 recites the test meter of claim 8, wherein the various digital demodulation decoding schemes comprises QAM and QAM variants. As discussed above, the modified system of *Emsley et al* disclose all limitations of claim 8, and *Emsley* further discloses the use of any number of QAM schemes. (Par. [0050]). Accordingly, the modified system of *Emsley* contains all limitations of claim 9.

Claims 15 and 18 correspond to Claim 9. Thus, each is analyzed and rejected as previously discussed.

6. Claims 2 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Emsley et al* in view of *Liu et al.* (US Pat. No. 6,222,891).

Claim 2 recites the test meter of claim 1, wherein the plurality of digital standards comprise ITU-T J.83 Annex A, Annex B, and Annex C and the various digital demodulation decoding schemes comprise QAM and QAM variants. As discussed above *Emsley et al* disclose all limitations of claim 1, and further teach the system is capable of filtering signals with passband widths of 6 MHz (i.e., Annex B) and 8 MHz (i.e., Annex A). (Par [0024]). *Emsley* further teaches the digital demodulation technique can be any number of modulation techniques, including QAM protocols (i.e. QAM and QAM variants). (Par. [0050]). But, *Emsley* fails to specifically recite the remaining limitation of claim 2. However, within the same field of endeavor, *Liu et al* disclose a similar system which is capable of demodulating signals that have been transmitted according to a variety of protocols as defined by the ITU, which include Annex A, B, and C. (Col. 1, Ln. 34-67 thru Col. 2, Ln. 1-8). Accordingly, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the systems of *Emsley* and *Liu* in order to provide a testing apparatus capable of receiving and demodulating signal information content that has been transmitted in accordance to ITU-T Annex A, B, and C standards.

Applicant argues that *Liu* only addresses distribution networks which utilize 6 Mhz bandwidths (i.e., Annex B). (Pg. 10, Appl. Response). However, the Examiner disagrees for a number of reasons. First, *Liu*'s system is not limited to Annex B networks because the discussion at Col. 5, Ln. 34-47 only addressed Fig. 1, which is an "exemplary" embodiment (Col. 5, Ln. 16)—not the only embodiment. Secondly, at Column 5, Ln. 7-10, *Liu* teaches his

system is compatible with and supports Annex A, B, and C coding formats. Thirdly, at Column 6, Ln. 51-67, *Liu* speaks specifically to an Annex A and C decoder. Lastly, although 6, 7, or 8 Mhz *may* be read into applicant's claims in light of the Specification, neither is claimed. Therefore, it is questionable whether Applicant's claims are limited to such an interpretation. For these reasons, the Examiner maintains the combination of *Emsley* and *Liu* disclose all limitations of Claim 2.

Claim 17 corresponds to Claim 2. Thus, it is analyzed and rejected as previously discussed.

8. Claim 6, 11, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Emsley et al* in view of *Schmidt et al.* (US Pat. No. 5,939,887).

Claim 6 recites the test meter of claim 5, further comprising a user interface operative to allow a user to select any one of the plurality of digital standards. As discussed above, the modified system of *Emsley* discloses all limitations of claim 5, further teaches the use of a display, keypad, and signature pad (i.e., user interface), but fails to specifically disclose the remaining limitations of claim 6. (Par. [0052, 0055, & 0056]). However, within the same field of endeavor, *Schmidt* discloses a similar system, which provides a control panel in which the operator can select a frequency span to be measured (i.e. tested). (Col. 5, Ln. 45-67 & Col. 6, Ln. 1-3). This frequency span, of course, could be broadly interpreted to encompass the passbands of *Emsley*'s Annex A and B standards. Therefore, in essence, a user of *Emsley*'s system could select a certain passband (i.e., digital standard) via an interface. Accordingly, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to

combine the modified system of *Emsley* with the system of *Schmidt* in order to supply a control panel in which the user could select a specific passband, thereby providing a system useful in diagnostic testing/monitoring of various cable systems.

Claim 11 corresponds to Claim 6. Thus, it is analyzed and rejected as previously discussed.

Claim 19 recites limitations which are combinations of limitations from Claims 6 and 8. Therefore, in so far as it corresponds, it is analyzed and rejected as discussed therein.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. *Vitale et al* (US Pat. Pub. No. 2004/0254757) disclose a hand held testing instrument.

b. *Chang et al* (US Pat. No. 6,891,803) disclose a telecommunications testing instrument.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jade O. Laye whose telephone number is (571) 272-7303. The examiner can normally be reached on Mon. 7:30am-4, Tues. 7:30-2, W-Fri. 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: Jade O. Laye
November 7, 2005.

CHRIS KELLEY
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